

UNITED STATES PATENT APPLICATION
FOR
INTERCHANGEABLE LIGHT DEVICE

Inventors:

EDWARD PINTO

RANDY PINTO

Prepared by:

Milord Keshishzadeh, Esq.
Milord & Associates, APC
2029 Century Park East
Suite 1700
Los Angeles, CA 90067
Telephone (310) 203-0989
Facsimile (310) 203-0986

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INTERCHANGEABLE LIGHT DEVICE

FIELD OF THE INVENTION:

5 The present invention relates to the field of lighting equipment in general, and more particularly, to an outdoor lighting fixture that is transportable and has interchangeable covers and adjustable height.

BACKGROUND OF THE INVENTION:

10 Various outdoor lighting fixtures are known in the art that illuminate pathways for safety. Numerous light fixtures have been provided along decorative flowerbeds and patio borders or to highlight garden features, and to otherwise light and decorate residential and commercial grounds as art of the overall landscaping. Typically, such fixtures employ a light
15 source, various types of electrical circuitry to provide intermittent illumination and colored film to provide the desired effect or mood. Such devices are generally relatively expensive, not overly attractive and extremely stagnant in their visual effects. Some of the above-referenced designs for lighting fixtures are illustrated in the following patents: Des. 383,867, Des. 341,221, Des. 385,374, Des. 353,014 and Des. 338,080.

20 The prior art does not address the need for lighting fixtures and equipment that would allow users to interchange the display of a message or the aesthetic functions of the fixture in accordance with the occurrence of a specific event or a holiday season. Therefore, there remains a long standing and continuing need for an advance in the art of light fixtures that is
25 simpler in both design and use, is more effective in allowing the interchangeability of units

attached thereto, and is cost efficient in its construction and use.

SUMMARY OF THE INVENTION:

5 Accordingly, it is a general object of the present invention to overcome the disadvantages of the prior art.

 In particular, it is an object of the present invention to provide a lighting device that is capable of being located at a place having no access to a commercial power source.

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 It is another object of the present invention to provide a lighting device that is operable on solar energy.

 It is another object of the present invention to provide a lighting device that is
15 relatively low in manufacturing costs.

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 It is yet another object of the present invention to provide a lighting device that automatically turns the device on and off, at dusk and dawn respectively, at appropriate levels of ambient light.

 It is yet another object of the present invention to provide a lighting device that has a telescoping arm for controlling the height at which the light will illuminate.

 It is a further object of the present invention to provide a lighting device that has an
25 interchangeable display element that is illuminated.

In keeping with the principles of the present invention, a unique lighting device is herein disclosed. According to one advantageous aspect of the present invention, the lighting device has an interchangeable display element that is position over the light bulb and is illuminated thereby. The display element may be easily changed by removable attaching means to communicate different messages or display symbols of a specific holiday season or event. The lighting device also has a telescoping arm to control the height at which the display element is illuminated. In addition, a solar cell may be provided as a power source in order to keep the operation of the lighting device at an inexpensive rate.

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Such stated objects and advantages of the invention are only examples and should not be construed as limiting the present invention. These and other objects, features, aspects, and advantages of the invention herein will become more apparent from the following detailed description of the embodiments of the invention when taken in conjunction with the accompanying drawings and the claims that follow.

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BRIEF DESCRIPTION OF THE DRAWINGS:

It is to be understood that the drawings are to be used for the purposes of illustration only and not as a definition of the limits of the invention.

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In the drawings, wherein similar reference characters denote similar elements throughout the several views:

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Figure 1 is an elevational side view of the light device in an assembled state

illustrating one of many display elements.

Figure 2 is a cross sectional view of the light device taken along line 2—2 of Figure 1.

Figure 3 is an elevational side view of one preferred embodiment of the display element.

Figure 4 is an elevational side view of an alternate preferred embodiment of the light device without the display element attached.

DETAILED DESCRIPTION OF THE INVENTION:

Referring to FIG 1 and FIG 2, therein is illustrated an interchangeable light device 10 having a display element 12. Display element 12 has a top region 14 connected to a bottom region 16. Top region 14 may be adapted into any shape and size as required and also adapted to relay a written message, symbols of a specific holiday season, symbols of a specific sporting event, or a celebration of a specific occasion. For purposes of illustration, but not limitation, display element 12 may be manufactured of a translucent polymeric compound such as, but not limited to, polystyrene or polyethylene. Specific colors may also be applied as desired to the compound comprising display element 12 by methods known in the art to effectuate the transmittance of the colors when in operation.

Now also referring to FIG 3, bottom region 16 of display element 12 has a removable attaching means 18 connecting to at least an aperture 20 thereof. Several alternate attaching

means 18 that are known in the art may be used to removably attach display element 12 to a support element 22. However, for purposes of illustration, but not limitation, a resilient snap-on design is herein illustrated. At least two protruding members 24 extend from opposing sides of support element 22 which is substantially tubular in shape. Protruding members 24 move in a horizontal plane and are movably kept in place by a resilient member 26 that are maintained in each of the protruding members 24. Resilient member 26 may be made of any known resilient devices that are known in the art such as, but not limited to, a spring. As such, protruding members 24 are maintained in an extended position at rest such that they extend through aperture 20 of bottom region 16 and maintain display element 12 on support element 22.

Now also referring to Figure 4, support element 22 is substantially tubular in shape and has a top end 28 and a bottom end 30 that is distal thereto. Although a tubular shape is illustrated for both support element 22 and bottom region 16 of display element 12, it is to be understood that a variety of alternate shapes are also possible without departing from the essence of the invention. As such, support element 22 has a sufficiently shorter diameter than the diameter of bottom region 16 to allow bottom region 16 to slideably receive top end 28 of support element 22 therein. In order to remove display element 12, protruding members 24 are depressed into apertures 20 and display element 12 is slid off top end 28 of support element 22.

Top end 28 receives a light bulb 32 in any manner that is known in the art. In addition, any low wattage lamp that is commonly known in the art may be used. For example, a fluorescent lamp, a low-pressure sodium lamp, a low pressure mercury lamp, an incandescent lamp or any other known lamp can be employed. However, for purposes of

illustration, but not limitation, a low wattage fluorescent lamp, of approximately 4 W, may be used as light bulb 32 in one preferred embodiment hereof. A power source 34 is stored within support element 22 and communicates with light bulb 32 in a manner that is known in

the art. Power source 34 may be any suitable low-voltage electrical power that is known in

5 the art, and in one preferred embodiment, as illustrated in Figure 4, power source 34 is linked with a solar cell 36. Power source 34 may be a rechargeable battery that is charged with electrical energy from the solar cell 36 via a diode, which is adapted to prevent a reverse electrical flow. An inverter may be provided, if necessary, to convert a d.c. current from the power source 34 into a high voltage a.c. current for lighting the light bulb 32. In addition,
10 logical operation circuits, which are known in the art, may be provided to distinguish between daytime and nighttime and to either turn light bulb 32 on or off. Furthermore, power source 34 may be provided with additional circuits that are known in the art to prevent the battery from being over discharged and avoiding the expenses related to the replacement thereof.

15 An affixing element 38 is adapted to be connected to a floor via an affixing end 40. Although affixing end 40 is illustrated herein as having a sharp end 42 for staking into the soil, it is to be understood that alternate affixing ends 40 which are known in the art for attachment to the ground may be substituted therefor. Affixing element 38 has a top boundary 44 that is distal to the affixing end 40. Referring specifically to Figure 1, affixing
20 element 38 telescopes from the bottom end 30 of support element 22 in any manner that is known in the art. However, in one preferred embodiment, the same technology used in telescoping antennas that are commonly used on automobiles may be employed such that when affixing element 38 is fully extended, top boundary 44 engages bottom end 30 of support element 22 in a secure manner.

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Now also referring to Figure 4, at least an extending element 46 may be inserted between bottom end 30 of support element 22 and top boundary 44 of affixing element 38. Additional extending elements 46 may be inserted as desired in order to allow the user to determine the height at which the display element 12 will be presented. Extending element 5 46 has an upper end 48 that is distal to a lower end 50. When fully extended, upper end 48 will engage bottom end 30 of support element 22 and lower end 50 of extending element 46 will engage top boundary 44 of affixing element 38 in a secure, yet collapsible, manner.

While the above description contains many specificities, these should not be 10 construed as limitations on the scope of the invention, but rather as exemplifications of preferred embodiments thereof. Many other variations are possible without departing from the essential spirit of this invention. Accordingly, the scope of the invention should be determined not by the embodiments illustrated, but by the appended claims and their legal equivalents.

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